

MICHIGAN FARMER.

DEVOTED TO
AGRICULTURE, HORTICULTURE, AND RURAL AND DOMESTIC ECONOMY.

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[For particulars see last page]

Preparation for Winter.

The last month of Autumn is a season that admonishes the farmer to finish his preparations for guarding against the inclemencies of a northern winter. One of the first cares of the merciful man is to see that all his domestic animals are well provided for, by being furnished both with good food, and with such comfortable quarters as they severally require. If he has permanent sheds and stables erected, it is well. If not, he must resort to temporary ones, and, in some cases, has time only for putting up those of the simplest kind. One of this description, which will answer for sheep, is described in Morrell's American Shepherd, and is made by having stacks of hay or straw at the distance of some 35 feet apart, laying poles on the top of the stack-pens, with crotches under the middle for support, putting rails crosswise of the poles to support the straw necessary for the roof. The back can be made by placing rails or poles parallel, and about one foot apart, and stuffed with old or partly rotted straw. Such a shelter will be found better than the open yard or the lee side of a fence.

Deep sheds are greatly preferable to narrow ones: they afford more protection, and save from waste a greater quantity of manure. It is desirable that they be from 20 to 24 feet deep, and separated at intervals by divisions, to prevent the master animals from monopolizing; it being well known that quadrupeds are little better than bipeds in respect to this tendency. A barn-yard facing the south, the barn on the north side, flanked by deep sheds on the east and west, affords effective shelter. Be careful to have the roof of the shed water proof. If so covered that it rains under them, some time after it has ceased elsewhere, the protection afforded in a cold winter rain will be but scanty.

Heaps of roots, kept in the field, will perhaps need additional covering before the closing in of winter. If there are two alternate coverings of straw and dirt each, a much less amount of dirt will be necessary to prevent freezing, owing to the non-conducting properties of air. From the

same cause, a large quantity of straw is beneficial.

Potatoes kept in cellars are apt to become strong before spring, from exposure to the air and light. To keep them in fine condition, cover them with sods, and they will keep nearly as well as when buried in the field.

A tool-house is one of the most necessary out-buildings for the farmer. The saving effected in the cost of new implements, and the expense of repairs by the practice of keeping them carefully housed when not in service, is, in a course of years, far from inconsiderable. There is also a great saving of time in knowing exactly where to find a tool when needed. This you will be able to do, if you carry it directly to the place of deposit, when you have done with it—unless you happen to have neighbors who borrow, but forget to return.

Another very necessary building is a good wood house, and the filling it with dry, seasoned wood is an important care to all who regard the comfort of the female part of the household—and who does not, to be sure? Man, if you would have sweet bread, and kind looks, you must see well to this point; for neither are compatible with green, incombustible fuel. Besides, (and now we touch you in another point,) one cord of dry, well-seasoned wood will go as far as two cords in the opposite condition. You know this, already. Have the kindness then, to take your axe directly after the ground freezes up, and not lay it aside until you have chopped your *year's supply* of fuel. Then await the first *good sledding* to draw it to your wood-house.

The garden will claim a portion of time during the present month. Take up cabbages and set them in a trench in your cellar—or set them out up to the head, and close together in a dry place in your garden, and make over them a roof, to exclude the rain. They will keep well, if dry, and may be used at any time, soaking them for a few hours previous in cold water, if frozen. Another method still, which is recommended in the American Ag., is to cut the heads of the cabbages from the stumps, and lay them top down, upon a dry piece of ground, (or rather, we should think, upon dry straw,) in parallel rows. Make these rows, one less in length and width every layer, so that when the heap is finished, it will come to a point. Over this heap place a covering of straw and dirt, the same as on a potatoe heap, so that they will not freeze.

Put now into the ground, either in beds or in nursery rows, the seeds of apples, peaches, pears, plums, in short, of every kind of fruit, in order

that you may have a supply of your own from which to fill vacancies in your orchards, or enlarge them, if you shall hereafter desire it.

Finally, prepare for the long winter evenings that are approaching, by laying in a stock of interesting and instructive reading, for old and young. If you have a school district and township library, see to their enlargement by the addition of choice books, not neglecting some on Agriculture. Get Johnston's plain and excellent treatise on Agricultural Chemistry, and your sons can learn the principles of their future occupation and not be afterwards staggered by the hard names which are sometimes necessarily used. As fast as may be, lay the foundation of a small private library of your own. Well chosen books are safe and unobtrusive companions, with which you can fill up with profit the hours of leisure. In their perusal, your children will be withdrawn from less worthy sources of amusement, and their minds be cultivated with knowledge which shall tend to make them useful and honorable members of society.

Benefits of Agricultural Societies, Fairs, &c.

Among the means for the advancement of agriculture, the establishment of agricultural societies, and the institution of annual fairs are not the least important. The number of these associations is yearly increasing, as is the interest excited by their exhibitions. The following are some of the advantages derived from them :

1st. They serve as mediums of communication among farmers, assembling them together from different parts of a county or state, for the purpose of mutual improvement. Here they interchange their views, and become acquainted with each other. Agricultural Fairs are the farmer's festivals, and the social feelings are cherished, and life enlivened by the pleasing excitement of these joyous occasions.

2d. They tend not only to instruct, but to excite a spirit of emulation to excel, which gives an impetus to the operations of the whole year. Farmers observe what the successful competitors for prizes have accomplished, and if at all ambitious, will infer that what men have done, men can do, and start themselves in the race of competition. This leads to improved processes, and more productive farming.

3d. Farmers have an opportunity to see superior stock of every description ; after which they are no longer satisfied with inferior and less profitable animals, but aim at excellence.

4th. Fairs bring together the seller and buyer of improved stock. If a man wishes to procure a superior animal, there is the place to find him. At the late State Fair at Utica, many choice animals changed owners to the mutual advantage of seller and purchaser—the former obtaining a high price for his property, and the latter getting that which was

of more value to him than the money which it cost.

5th. They furnish a place where the inventors of all new agricultural machines and implements may present them for inspection, and trial, before that portion of the community for whose use they are designed. Each instrument is tested, and if found valuable, meets with purchasers on the spot, and a wide recommendation of its merits through the land.

As an exemplification of the interest which attends these festivals elsewhere, may be given a summary of the late State Fair at Utica. It was estimated that the number of visitors during the three days of its continuance was 40,000. These were from all parts of that state, and numbers were attracted thither from other states—some from remote parts of the Union. A ten acre field was enclosed the whole of which was as fully occupied with animals, and other articles exhibited, as the convenience of the crowd of spectators would admit. Within this field were four large temporary buildings. *Floral Hall*, filled with specimens of flowers fruits and vegetables. *Ladies' Hall*, devoted to specimens of female skill and industry. *Farmers' Hall*, occupied with various farm products, chiefly cheese, butter, and sugar. *Mechanics' Hall*, for the exhibition of those mechanical inventions most interesting to farmers. A space of nearly an acre was covered with agricultural implements, many of them newly invented; among them were some fifteen or twenty kinds of plows, common and subsoil ; harrows, gang-plows, cultivators, scarifiers, seed-sowing machines and coverers, reaping machines, horse powers, straw-cutters, cob-crushers and grinders, fanning-mills, horse-rakes, threshing machines, stump machines, &c. &c. Several of these machines were in operation on the spot. Of animals exhibited there were of horses 14; of the various imported breeds and native stock of cattle, 274; of sheep, 257; swine, 24; besides a full representation of the poultry interest. A plowing match, in which there were twenty competitors came off the last day, and an eloquent address from Josiah Quincy, Jr. Esq., of Massachusetts and the awarding of premiums were the closing performances.

We doubt not the time will come when exhibitions, similar in interest, if not in extent, will be held in Michigan. For this we must bide our time. All premature effort in this matter would be, in its ultimate effect, discouraging and disastrous. The state has as yet comparatively little to exhibit, and a large portion of its population are not yet sufficiently removed from the difficulties and embarrassments incident to first settlement to have means or leisure to devote to this object. So soon as

these obstacles are removed, and the condition of things is such as to insure success, we hope to see the State Agricultural Society re-organized. Antecedent to this step however, there may be county organizations, in some of the older and richer counties, and perhaps the establishment of a State Board of Agriculture, to collect statistics, receive the reports of any county organizations that may be formed, and generally to devise means for the promotion of agricultural improvement throughout the state. Such a plan has lately been adopted in Ohio.

We extract the following spirited account of the N. Y. Fair from an exchange paper:

The late New York State Fair--Agricultural Enthusiasm--Increasing Respect for Labor.

To those who have attended the successive State Fairs of New-York, comparisons between the past and the present will be at once suggested. Not only the absolute change which is so clearly manifest, but *the spirit* at work strikes the mind with pleasurable wonder and pride.

Four years since, when the first State Fair was called at Albany, it was considered a matter of doubt whether the great experiment would succeed. It was deemed more than questionable whether even a sufficient number of visitors could be induced to come there, to pay the expense in getting up these Farmers' Festivals. That Fair was held, and it succeeded beyond the most sanguine expectation. It was found to be a most attractive place to visit. Those who went, messenger-like, soon spread the news in their several localities, and those who neglected to go, afterwards regretted that they had lost so much pleasure.—The next State Fair was held at Syracuse. The gathering was large, and the exhibition fine.—The next at Rochester, where Western New York poured out its richest treasures and its thousands and tens of thousands of people. In 1844, it was given to the Hudson River Counties at Poughkeepsie, and most nobly did Eastern New York repay that honor, by an exhibition worthy of her past reputation, while the people gathered there not by thousands, but tens of thousands, to celebrate this great annual holy-day. In 1845 the Fair was awarded to Central New York at Utica, from which so many thousands have recently returned to their homes, and where the exhibition in the really useful has surpassed that of any previous year.

At every successive Fair there has been an increasing interest evinced, until now the enthusiasm has become so wide-spread among all classes, that the question is not, Have you been there? but rather, *Have you not been there?*

One of the best evidences of this deepening and pervading interest is the increased attendance of ladies, whose presence is thus calculated to dignify and adorn *the useful* in the Farmer's life. Four years ago their attendance was limited. The number has increased from year to year, until at the late Festival at Utica at least one-half the visitors were ladies. Many from distant parts of the state, and of a class too, who do not usually attend these exhibitions. They came there with

their fathers, brothers and mothers to commemorate the great Harvest Home of New York.

We allude to this circumstance because nothing can be more calculated to render agricultural exhibitions popular with our people, who are noted for the respect they entertain for the fair sex. Their influence in forming the tone of public opinion is of inconceivable moment, and therefore, we hail their presence upon such occasions, not only as calculated to enhance the pleasures of the hour, but as tending to give interest to the occupation of the farmer, and to elevate the life of manual labor to that position which it should occupy in the minds of the rising generation of our republic.

It requires but little perception to see that farming is becoming fashionable in this country. Young men of position, wealth and education, now pride themselves upon having a finely managed farm, and a superior breed of stock. At the late fair we met young men of fortune and finished education scarcely in their majority, who have become farmers, and who pointed with peculiar pride to the articles they had raised for exhibition. The influence of such examples is scarcely to be estimated. Ten years since such was the diseased state of public opinion in relation to farming, they would have been almost ashamed to acknowledge that they were farmers. But those days of sickly sentimentality have passed, and a healthier and sounder tone is infused throughout the State, and we may hope throughout the Union. The cultivation of the soil is now regarded with a real pride. The toil hardened hand and the sun-burnt face are no longer esteemed a reproach. Labor is approaching the true dignity of its position, while the devotees of indolence begin to be estimated as they should be, in a republican country like ours.

Though much has been done, much remains to be done. IMPROVEMENT should be the constant watchword in all *the details* of farming. When any thing is to be done, it may be as well done well, as shabbily done, and frequently too with no more expense, and trouble. The great point in all farming should be to get the full worth of the labor and money expended. The experience of every one will at once call to mind how much is wasted. The comparison and observation of every farmer will constantly suggest something better. When alterations or repairs are to be made, common sense would at once say that these should be done in an improved style.

From Morrell's American Shepherd.

Bad Policy in keeping Sheep too long on pasture alone, late in the Fall.

It is the practice of a large majority of flock masters to allow their sheep to run upon the fields in the fall, as long as the ground is uncovered with snow, without the aid of a little hay or grain. This is bad management, and cannot be too strongly condemned. The grass, it is well known, after repeated freezing, loses much of its virtue to nourish, and therefore fails to keep up good condition, unless accompanied with a modicum of hay, or grain. The diminution of flesh may not be very apparent, yet nothing is more certain than that the sheep are losing their stamina. If some

are expostulated with on this subject, they reply, "We do offer hay, but the sheep refuse to eat it;" but on further investigation, it proves to be the *tops of their stacks*, something not worthy the name of hay, and therefore no wonder the sheep rejected it, preferring the decaying grass to such trash. It would not have been thus, if it had been barn hay; which is an item proving the great utility of barns to the flock-master. Many sheep are sent out of this "breathing world before their time;" and if their ghosts were permitted to return and unfold the cause, they would shake their woolly locks, and say, "We did it," by starvation late in the fall. Let us reform in this matter altogether.

SORTING, PREPARATORY TO WINTER.

This very obvious and essential duty is strangely unheeded, yet nothing is scarcely more important. To put the weak with the strong, spring lambs with the adults, or wethers with breeding ewes, should always be avoided.

The writer, about the 10th of November, assembles his lambs, and classifies them as to condition and size, and herds them in flocks of about one hundred each.

The older sheep are already divided with respect to sex, as he never permits wethers and ewes to run together, at least not after their first shearing. Of these, 100 constitute a flock.

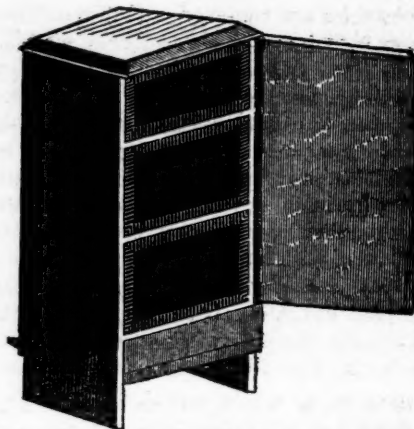
The least fleshy are selected, and, from this time onward, receive attentions accordingly.

Wethers, designed to be turned off the following summer, are thrown out, and fed a little grain daily, as these are provided through the winter mostly with oat or wheat straw, with an allowance of grain; therefore, early graining is somewhat necessary.

After the 1st of November, the master should be speedy in making all repairs necessary about his barns, yards, &c., for the reception of the flocks into their respective quarters. It is better to be a few days too early, rather than even a few hours too late. "Ever ready" is the motto of the thrifty and well-ordered flock-master.

Coughs in Horses.

In all disorders accompanied by a cough the true cause should be ascertained. Sometimes the cough is only a consequence of a chronic or seated disease, as is the case in heaves, &c. At other times it is symptomatic of recent inflammations in the throat and lungs. Sometimes it is brought on by horse-ail, which is an inflammation of the mucus membrane of the head and the glands about the throat. We have found salt given freely, together with an occasional dose of saltpetre, to be an excellent remedy in cases where a horse has had the horse ail, and the cough holds on after the original disease seems to have gone. For a dry, husky cough not attended with the heaves, green or laxative food, such as roots or mashies of scalded bran, in which is put the pulverized root of Elecampane and Lovage, has been found beneficial. If there should be found indications of heaves, put a spoonful of ginger once per day in his provender and allow him to drink freely of lime water. Horses that are kept on musty hay will very soon begin to cough. The best remedy for *musty hay* cough, is to change the diet to good sweet clover.—*Mc. Farmer.*



Reynold's non-swarming and dividing hive.

This hive is divided, as seen in the above cut, into three apartments, and is so arranged that the apiarian may cause the bees to leave one apartment and pass into the others, thereby freeing the honey from its incumbents at pleasure. Dividing, it is said, can be performed with ease and safety, and all depredations from the bee-moth and robber be prevented. Whenever a hive is full, instead of allowing bees to swarm as in the old method, a separation is made by withdrawing the middle draw, and transferring it to the same position in another hive. In the portion of the divided swarm which is deprived of a queen, it is said the bees, if confined for three or four days will select a grub to supply the place of their lost sovereign, and then remain contentedly. The process by which honey may at any time be taken from either draw without disturbing the bees, appears very ingenious. The hive is much commended by experienced apiarists. The inventor and patentee is Dr O. Reynolds, of Webster, Monroe county, N. Y. who accompanies the right with a pamphlet describing minutely the methods of operation.

Leached Ashes as a Manure.

Our friend, John B. Hayes, Esq., of Brewer, an intelligent, close observing, and successful cultivator, has furnished us the following facts regarding the use of leached ashes as a manure. The great art of agriculture is so important that every fact and every suggestion regarding it as worthy attention. The high source from whence the following facts and suggestions originate, give them, if possible, additional importance.

Mr. Hays says—I used several hundred bushels of ashes on my farm—I used none on a plat of ground of which I am about to speak. It lay near the Penobscot river adjoining the land of Dea. Lot Rider, and in a sandy loam, quite sandy. Mr. Rider's is the same kind of soil. Each piece of land had been pastured several years, was plowed up very near the same time. I applied no manure of any kind to this piece of land in consequence of having other land under the plow which I thought would better pay for the application of manure. Mr. Rider applied to his no manure except leached ashes, at the rate of about 150 bushels to the acre. He sowed rye, I sowed oats. The crops both of rye and oats were better than we expected from such hungry sandy land. We both sowed grass seed on our land, and the seed came up in such a manner as to satisfy me that the seed was in both cases good. But after the grass came up there was a marked difference in its healthy appearance and rapid growth of that to which the ashes were applied, so that at the present time the latter is, as I should judge, from 8 to 12 inches in height, of a dark green and vigorous; whereas the piece to which no ashes were

applied has not one quarter the size, and is not vigorous in its growth. I am satisfied that nothing could have caused the difference in the growth of the grass except the ashes. I at first thought that the difference in the growth of grass might be attributed to ones having been sowed with oats the other with rye. But one other fact satisfied me that this was not the case. It is this: The ashes was not applied to a strip of land about a rod wide, but was applied on two sides and one end of this strip. And a person might in passing from that to which the ashes was applied to that to which it was not, pass at a single step from grass a foot in height to almost nothing. The difference was visible at a distance of several rods. I have called the attention of some of our best farmers who are satisfied that the difference was caused only by the application of the ashes. Large quantities of leached ashes are used in New York, New Jersey, &c., where they sell for from 12½ to 20 cents per bushel. Are ashes worth any less to our farmers than to the farmers of other places? Should our farmers neglect to apply ashes which cost only five cents per bushel here, which price the New Yorkers are willing to pay us here, and do pay us here, and pay the freight to there besides.—*Bangor Courier.*

Weight of Green Corn on an Acre.

Great stories have been told of the amount of roots that have been grown on a single acre of ground; and some have supposed it incredible that forty tons of the yellow turnip, or mangel wurtzel, could be grown on an acre. But a little calculation will show that forty tons of green corn may be produced in the same space and we have no doubt it has been done.

Last week we had the curiosity to weigh ten hills in our own field, that stood side by side near the centre of the acre. These weighed over one hundred pounds though the corn was of our common kind, raised for grain. The hills grew at the usual distance from each other, one pace; this gave us four thousand hills, and four thousand hills multiplied by ten gives forty thousand pounds—or twenty tons. But for cutting up green we plant the horse tooth, or Virginia corn, and this more than twice as thick as we do when we plant to raise mature ears of corn; so that any one may see it is possible and even easy, to grow forty tons of green corn on an acre. He need but to weigh a single hill to form a tolerably correct judgment.

Six hundred bushels of potatoes have been grown on an acre of ground. At seventy pounds per bushel we have twenty-one tons. Four tons of hay, dry, have been made from one acre; but dry hay will not weigh more than one fourth as much as the grass will at the time of cutting.—Sixteen tons of green fodder, in the form of grass, may therefore be grown on an acre of land.

We make these calculations that farmers may not deceive themselves on being assured of what large quantities may be grown on an acre for fodder for cattle. It may be that corn will give more in weight than any other vegetable, yet it will not follow that corn can profitably be grown for the sole purpose of using the stalks as winter fodder.

—*Mass. Ploughman.*

Carrots.

The following is copied from the records of the meetings of the N. Y. Farmer's Club.

"Wm. M'Kinster, of Middletown, Conn.—A written communication from him on the subject of soiling cattle was read. He asserts that carrots are fully equivalent, bushel for bushel, to oats for feeding horses in winter; that there is no difference in the working ability of a horse fed on carrots or oats.

The Chairman.—A bushel of carrots well cut up by a power root cutter, is as good as a bushel of oats for a working horse. I have tried the experiment fully and satisfactorily; I have fed twelve quarts of sliced carrots instead of twelve quarts of oats to a horse, the whole winter, and found no difference in the results. I gave hay with the carrots as we do with the oats. The carrots cost about ten cents a bushel and the oats nearly thirty cents a bushel.

Dr. Underhill.—The general average price of oats is about thirty-five cents a bushel.

The Chairman.—Carrots are beneficial to horses that have the heaves. Others have practiced as I have with like satisfactory results. I have raised three hundred and twenty-five bushels of carrots on three eighths of one acre. I manured with decomposed peat and ashes. I subsoiled the hill. The white carrot is good—gives rather greater yield than the orange carrot—it grows more out of ground and is easier to gather. I do not attach much value to the ruta бага. It has however one advantage, it may be sowed late and upon any vacant spots in a field and is so far clear gain.—*Bost. Cult.*

Measuring Corn.

The following rule for ascertaining the quantity of shelled corn in a house of any dimensions, is by William Murray, Esq., of South Carolina, and was read before the St. John's Collection Agricultural Society, and communicated by them for publication in the Southern Agriculturist.

Rule.—Having previously levelled the corn in the house, so that it will be of equal depth throughout, ascertaining the length, and breadth, and depth of the bulk; multiply these dimensions together, and their products by four, then cut off one figure from the right of this last product.—This will give you so many bushels and a decimal of a bushel of shelled corn. If it be required to find the quantity of eared corn, substitute eight for four, and cut off one figure as before.

Example.—In a bulk of corn in the ear, measuring 12 feet long, 11 feet broad, and 6 feet deep, there will be 316 bushels and eight-tenths of a bushel of shelled corn, or 633 bushels and six-tenths of ear corn, as:

12	12
11	11
—	—
132	132
6	6
—	—
792	792
4	8
—	—
316,8	633,6

The decimal 4 is used when the object is to

find the quantity in shelled corn, because that decimal is half of the decimal 8, and it requires two bushels of ear corn to make one of shelled corn. In using these rules, half a bushel may be added for every hundred; that amount of ears results from the substitution of the decimals.

The term, "*barrel of corn*," so much used by Southerners, means five bushels of shelled corn. —*Emigrant's Hand-Book.*

Ice Houses.

There is an indifferent, good, better, and best way of doing every thing; and judging from the success of ice-keepers, we should suppose the mode of constructing ice-houses had not uniformly been adopted in this country. It is very often the case, that ice is not kept beyond mid-summer. This is owing, in every instance, to the want of requisite information in building houses of materials which are too great conductors of heat. In beginning to build, it is not only necessary to "count the cost," but it is very important for every one to ask himself, what he wishes to accomplish before he commences, lest his labor be lost. The common plan is, to dig in the earth some eight or ten feet, and build a house from the bottom, extending from four to ten feet above the surface. The earth and all the materials, on this plan, are too swift conductors of heat to completely secure the ice. The better plan is to construct a building entirely above ground. One house should be built in another, the walls being eighteen or twenty inches asunder, and this space filled with pulverized charcoal or tan bark. The floor should be filled some twelve or fifteen inches, and a layer of tan bark thrown over it to the depth of a few inches. This kind of a floor will completely absorb the moisture and keep the air dry. Rye straw makes an excellent roof. No matter how coarse and cheap the materials are. A good ice-house may be built of logs.—*Ib.*

Heading Cabbages in Winter.

In the fall of the year when it is time to gather cabbages, we always find more or less of them that have not formed any heads. They may have grown well, and have a large stock of leaves, but have not closed up in the form necessary to make a good, solid, compact cabbage.

A farmer friend of ours has practiced for many years the following method, which effectually closes these loose leaves in the course of the winter, thereby furnishing him with a supply of the best kind early in the spring.

In the fall of the year, just before the ground closes up, he gathers all the cabbages which have not headed; he then digs a trench eighteen inches or more deep, and of sufficient width to admit the cabbages. He then closes the leaves together by hand, winding a wisp of straw or something else around them, and then puts the cabbages into the trench, with heads down. He then packs straw or leaves and earth snug about them, and rounds up the earth over them. The trench should be dug in a place where the water of rains and snows will not stand about them. A couple of boards nailed together in the form of a roof and put over the mound, may be useful.

In the spring of the year open your trench, and you will find that your cabbages are all headed

firmly together, and if the water has not got in, will be solid and hard. We once *tried* a few heads formed in this way, which were very nice.—*Me. Farmer.*

From the N. Y. Farmer and Mechanic.

Muck and Lime.

GENT.—In this section of country, as in most others, the only material wanting is manure, which I think may be found to be more abundant than most men are aware of. I see on almost all farms lots of muck, in the shape of bogs, or in swamp holes, which might be easily drained, and converted into valuable manure by means of a little lime and exposure to frost, rain and sunshine. I will relate some few facts that have come under my immediate observation, in my own town, a little back from the Connecticut river. It was upon a farm purchased by my father, that had been exhausted of its productive properties, by selling off the hay and straw for several years in succession. It was restored in the following manner: The first year, about twenty loads of turf-muck, from a piece of ground mostly grown over with sour grass, was put into the hogs' yard, for them to work over; fifty more into the barn-yard, for the cattle and sheep to work up, turning it over once or twice in the course of the summer. Before getting it out, it was put into heaps, mixing in the coarse manure and a little unslacked lime and leached ashes. As soon as the heap got quite warm it was removed to the field. This was used as a top-dressing upon land that had before been planted and hoed, and now laid down to grass, which dressing gave us a good crop of wheat and oats, and assisted the grass-seed to get deep-rooted, and the result was a good crop of grass after it. The compost from the hog-yard was put in the hill for corn and potatoes, which gave good return for the labor.

Next year, two different experiments were tried, not quitting the first however. One was, to get out about sixty loads of muck from one place and another, and leaves and other substances from the woods; let it lie exposed to the frosts of winter and the rain and sun of summer, until about the first of August, when about three hogsheads of lime, unslacked, was mixed with it, and when properly heated, was put on three acres of turf ground, newly turned over and rolled down smooth, and then well harrowed in. Rye and grass seed were then sowed, the land again harrowed and rolled, to make smooth, and it produced two tons per acre of good hay, whereas before, not one-half ton was cut.

The other experiment was, to take fresh muck, sour and cold, as it came from the place dug, and put a part in the hill for corn and potatoes, but did not get much benefit from it the first year, though the crops continued to improve as the muck got warm. This field, in the course of three years, was made to produce a good quantity of grass, just by harrowing the turf when dry enough to bear the team, sowing plenty of timothy and red-top, and putting on about ten loads of compost per acre, made from yard manure, muck and lime.

Morristown, N. J.

E. P. W.

☞ Enjoy your little while the fool seeks for more,

Domestic Economy.

To Cure Hams in a cheap manner.

Lay your hams in tubs, if convenient, flesh side up; sprinkle salt on the fleshy part; let them drain twenty-four hours; then rub off the salt, and lay them in a large tub. Then prepare a brine by dissolving one pound of salt in one gallon of water, and to every six pounds of salt three and a half ounces of saltpetre. Make a sufficient quantity to cover the hams. Boil the brine, taking off the scum, and while boiling-hot pour it over the hams. Let them lie in the brine six weeks, then take them out, drain them, and smoke them.

Smoking hams is done as follows: Make a smoke with corn-cobs, if you have them—if not, with sound hard wood, with damp saw-dust thrown over the fire to prevent a blaze. Suspend your hams above this at a distance, to receive the most of the smoke. When they are a good brown color, which will be in about three weeks, they are smoked sufficiently.

They should then be dried. When dry, sew any kind of cotton cloth over them, and white-wash the outside; or if you have plenty of ashes in a dry place, cover the hams with paper, and bury them in ashes till wanted for use. This preserves them from bugs, and it is thought to improve their flavor.—*Emigrant's Hand-Book.*

Sausages.

Proportion your meat about half fat and half lean; cut it fine; then to one hundred pounds of meat add two and a quarter pounds of salt, ten ounces sage, and ten ounces of pepper made fine. Warm the meat, and mix them in thoroughly and stuff them, and the thing is done right. If any wish to keep them through the summer good and fresh, put them in a clean firkin, warm fat and pour in until you cover them; cover and set them in the cellar, and they will keep good the year round.

ANOTHER MODE.—Prepare the sausage meat in the usual way. Then, instead of putting the meat in skins, prepared from hog's entrails, make bags of white clean cotton or linen cloth—as large say, as a man's arm, larger or smaller, as may suit, and of convenient length, say about a foot long—and put the sausage meat in these bags, and hang them up to dry. In this way you save much labor in preparing the skins, and considerable in cooking: slip off the bag from so much as is needed, and cut the sausage into slices of sufficient thickness for cooking.—*Id.*

To Preserve Cabbages.

Gather them before the severe fall frosts. Let the coarse outside leaves remain on them. Fix a strong string around the stalk; and suspend the cabbage from the timbers of the ceiling, heads downward. The cellar should be cool and dry. This will preserve them with certainty.

Another good method is to cut the head from the stump, pack close in a cask, taking care to fill up all the vacancies with dry chaff, or bran, and keep in a dry cellar.—*Id.*

THE VIRGINIA MODE OF CURING HAMS.—Dissolve two ounces of saltpetre, and two tea-spoonfuls of saleratus, in salt pickle (salt and water),

as strong as possible; for every sixteen pounds of ham, add half a pint of molasses. Then put the hams into the pickle, and let them remain three or four weeks; then take them out and smoke them with the hocks downward, to preserve the juices.—*Id.*

TO PICKLE CABBAGE.—Pull off the loose leaves, and cut the cabbage into shreds with a sharp knife; then sprinkle a little salt in the bottom of a keg or jar; then put in a layer of cabbage, and sprinkle salt, peppercorns, a little mace, cinnamon, and allspice; then add another layer, and add spices and salt, as before. Continue these alternate layers, etc., until your jar is full. Heat your vinegar scalding hot, put in a little alum, and turn it while hot on the cabbage. Turn the vinegar from the cabbage six or seven times, heat it scalding hot, and turn it back while hot, to make them tender.—*Id.*

Labor-saving Soap.

To make it, take two pounds of sal. soda, two pounds of yellow bar soap, two quarts of water, or in like proportion. Cut the soap into thin slices, and boil together two hours, and then strain through a cloth into a tight box or tub; let it cool and it is fit for use. Do not let it freeze.

To use it: put the clothes in soak the night before you wash. The next morning put your water into your kettle or boiler. To every two pails of water, add about one pound of the soap. As soon as the water with its dissolved soap boils, wring out the clothes from the water in which they had been at soak during the night, and put them into the boiling water, without any rubbing. Let them boil one hour, then suds and rinse them, and they will be clean and white. They will need no rubbing, except a little on such places as are soiled, and for that no wash-board will be required. The clothes should be rinsed in two waters.

Colored and woollen clothes must not be boiled as above, but may be washed in the suds weakened with water. The clothes will last longer by the use of this soap, and much labor will be saved.

Six pounds of sal. soda, six pounds of bar soap, and thirty quarts of water, will make about fifty pounds of the soap. The soda costs about eight cents a pound, and the bar soap eight cents a pound.

A pint measure will hold a pound of the labor-saving soap. This will save the trouble of weighing every time.—*Id.*

Apple Sauce.--Good.

Put a table-spoonful of water into a quart basin, and fill it with good boiling apples, pared, quartered, and carefully cored; put a plate over, and set them into a moderate oven for about an hour, or until they are reduced quite to a pulp; beat them smooth with a clean wooden spoon, adding to them a little sugar, and a morsel of fresh butter, when these are liked, though they will scarcely be required.

The sauce made thus is far superior to that which is boiled.

Good boiling apples, 1 quart: baked one hour (more or less, according to the quality of the fruit, and temperature of the oven); sugar, 1 oz; butter, $\frac{1}{2}$ oz.—*Id.*

Editor's Table.

Notice.

All remaining subscription dues are expected to be paid in during the present month. The publisher has waited patiently until the proceeds of the crops might be realized, and now, as a faithful laborer in the agricultural field, (which he endeavors to approve himself,) he must claim his pittance.

His demands are small, and numerous, and scattered through almost all parts of the State. He hopes subscribers will be considerate, and by remitting their respective dues, save him the trouble of putting their accounts into the hands of agents for collection. If compelled to take this course, it cannot be considered inequitable that 25 per cent. should be added to each account so delayed, to defray the expense of the procedure.

If any should prefer remitting by inclosing in a letter instead of following the directions of the new Post Office law, he of course has no objections.

On all sums of two dollars or upwards he is willing to lose the postage. Receipts for all payments will be sent with the next number.

CORN AFTER TURNIPS.—In reference to the assertion that corn will not do well after turneps, the Ia. Farmer and Gardener says:

"We presume that corn does as well after turneps, as turneps after corn. Both are large consumers of potash; and in soils not rich in that substance, the one crop unfits the soil for the other, very much as a horse unfits his manger for another horse—by eating up the fodder. If land were thoroughly dressed with ashes after the turnep crop was taken off, it would yield corn; at least as good a crop as it would have done if the turneps had not been planted.

"The ashes of corn stalks contain 72 per cent. of salts of potash and soda; turneps contain 81 per cent. Both are exhausters of the soil in respect of its potash. But turneps withdraw nine pounds more to the hundred than corn. They are not proper crops to succeed each other in a rotation."

We cannot concur in the correctness of this explanation. Liebig classes turneps among plants which are not great exhausters of potash. (See Liebig's Ag. Chem. on the alteration of crops.)

But, were we to concede the truth of the premises, we are not satisfied that the foregoing reasoning accounts fully for what it aims. If corn and turneps cannot successfully follow each other because both are exhausters of potash, neither could corn follow corn for the same reason. But this is against experience, as successive crops of corn do succeed each other on the same land, sometimes for many years without deterioration. We think this, and similar instances are best explained by the theory of excretions from the roots of certain plants unfitting the soil for the production of the same, or certain other plants. This theory, in connection with the exhaustion of the soil of certain ingredients, affords a full explanation.

A similar example is found in the case of corn following buckwheat. It will not prosper, although abundant pains be taken to keep down the buckwheat by frequent hoeing.—Farmers say the latter *poisons the ground*—which expression, if the theory of vegetable excretions be admitted, is not far from correct.

A COMPLAINT.—"The Michigan Farmer is an excellent and well-filled paper, but it only comes to us 'once in a dog's age,' and in the present times of canine insecurity not quite that."—*Prairie Farmer*.

In reference to the complaint of our much respected neighbor, we can only say that if "canine insecurity" over the lake is such that "a dog's age" does not average a month, then our paper ought not to reach him "once in a dog's age"—for we, like him, come to light but once a month. But if "a dog's age," with him, is more than a month, then we plead not guilty to the charge of irregularity, for we have always mailed our paper in exchange with him very punctually.

LOCUST SEED.—Let every farmer who is not already well provided with this most useful and ornamental tree, take pains this fall to procure its seed. It may be found in Detroit, and many of our older villages, and be had for the gathering; or it may be procured at any Eastern seed-store. Let him plant a small nursery in the spring—in two years the trees will be ready for transplanting. Let him plant them along his outside, if not his division fences, at a distance of eight or ten feet apart—eight feet, if designed to nail boards to—ten feet, if intended to serve as living posts for a rail fence. If for ornament merely, one rod, or in every other length of fence. At the end of six years more, they will be large enough to answer their destined purpose. If timber is scarce, ten per cent. will have been added to the actual value of the farm, and it will have been so beautified, that to the eye of taste, its value will have increased twenty-five per cent. Whatever damage may ensue from the shading of crops, will be more than compensated by the grateful shade afforded to cattle and sheep, which, indeed, in recompense for the shelter, will see to it that that portion of the field is not the least productive. The spreading of the roots may, we think, in a great measure be obviated by planting on a back-furrow, and trench-plowing on each side.

Let any farmer try this, and our word for it, ten years hence, he will pronounce it labor well bestowed.

If the farm-house is on a bleak and exposed site, let a strip of these trees ten or more rods wide, be planted on the north and west sides, and within the time specified, the force of the cold north-westerns will be broken by a beauti-

ful grove, and materials provided for great numbers of the best of fence-posts. This has sometimes been done by settlers on prairies, and in six years their locust grove has furnished them sensible protection. To avoid the labor of transplanting, the seed, in such cases, might be dropped in shallow furrows at proper intervals, and covered by the next.

IMPROVED IMPLEMENTS AND STOCK.—No friend to the Agriculture of his adopted state could witness the array of ingenious, labor-saving implements, and beautiful stock of every kind, at the late State Fair at Utica, N. Y., without wishing that these were attainable here. As auxiliaries to an improved system of agriculture, implements well constructed, and nicely adapted to the work to be done, are as necessary as good tools for the mechanic. One who has not visited the Eastern States within the last ten years, is not aware of the advances which have been made in this respect. These machines and implements are some of them costly,—and only applicable to the farmer of ample means,—but many others are within the means, and suited to the condition of all. Many would repay their cost the first year, by the saving they would produce. Is there no man of capital and public spirit in Michigan, who will supply what the State so much needs—an *agricultural warehouse* for the sale of improved implements, new and valuable seeds, &c.?

We shall continue to exhibit occasionally engravings of some of these inventions, in order that our readers may at least have some idea of what their brother farmers are doing elsewhere.

FALL-PLOWING.—Remember the counsel in our last not to fall-plow and leave in the furrow light soils. The reasons given for this counsel are cogent, and are confirmed by experience. The only object of fall-plowing, is to avail oneself of its disintegrating effects for improving the texture of heavy adhesive soils. Exposure to frost imparts no additional fertility. Hence those soils already sufficiently friable, have no need of this process,—while their exposure tends to leach out their valuable mineral ingredients.

We believe we may legitimately carry this reasoning further, and infer that it is disadvantageous to such soils to put in a crop on them late in the fall. Although the harrowing in of the crop in part levels the surface, and so subjects it to less injury than if exposed in the open furrow, yet the ground does not have time before the setting in of frost to settle down, and acquire the degree of compactness which would seem necessary in order to prevent the leaching and exhausting effects of its winter and spring exposure. If this inference

is correct, although the crop obtained by late sowing is generally light compared with those earlier sown, the soil may be more exhausted and injured in the process.

The subject is an important one, to all who till the lighter description of soils in this state—such as nearly all the oak openings are.

WHEAT AFTER CORN.—We are told by a farmer in whose judgment we have much confidence, that wheat will do better, and be less liable to be affected with rust, (provided it can be got in seasonably,) when raised after corn, than on a summer fallow. He thinks this is particularly the case on soils rather too rich for wheat. It seems not improbable that the partial exhaustion effected by the corn crop may benefit the wheat in such cases. Our informant states that there is observable a less growth of straw, and a better growth of wheat; the heads being better filled, and the grain plumper. If these observations are correct, they are important.

SOWING CLOVER-SEED WITH CORN.—The same farmer informs us that he saw tried the past season the experiment of sowing clover seed among corn. The method was this. At the last dressing of the corn, the clover seed was sown, and the cultivator was run through, one way, which covered the seed, except a narrow space where the rows were; this space was covered by a man who followed with the hoe. The clover grew vigorously, and before the first of October it was up ankle-high, and covered the ground. The corn had been cultivated without hilling up.

ROTATION OF CROPS.—The same suggests the following six-field course. 1st year, corn; 2nd, wheat; 3rd, clover; 4th, clover; 5th, corn; 6th, clover.

THE SUB-SOIL OF THE OPENINGS GOOD FOR HERDS-GRASS.—A friend informs us, that in his door-yard, which was made ground, the soil being dug out of a hillock of gravel and sand, herds-grass has always grown luxuriantly. When the earth was carted in, and levelled off, a light surface dressing of manure was given to it, and grass-seed sown. This was several years since—no subsequent manure has been applied, and he has the past summer mown two crops of hay—the first a heavy one.

Our informant says he has sown timothy on his farm after two years of cultivation, and applied plaster as a dressing, but he could not succeed in raising a respectable crop. He accounts for this by supposing that the surface soil is charged with an excess of potash, the product of the annual fires, and that it is not until several years of cultivation have exhausted a portion of this alkali, that timothy will

prosper. The soil of his door-yard, being taken from below the surface, he supposes had not this excess, and therefore at once produced good grass.

We believe that the sub-soil is better adapted to the growth of grass than that of the surface, and that timothy thrives better on the latter after years of cultivation; but are not satisfied that the cause of failure is that which he suggests; for we think we have observed that grass, as well as grain, grew best where brush-heaps had been burned, and if potash were already in excess, this would not have happened. We submit the matter to those who have had experience.

RAISING CLOVER SEED.—We observe that numbers of thrifty and enterprising farmers are turning their attention to raising clover for seed. We know one, who devotes this year 30 acres to this purpose—20 acres are in June clover, which he mowed, and let the second growth go to seed. From the 30 acres he will probably get from 80 to 100 bushels of clover seed, for which the price has hitherto been from \$4.50 to \$6 per bushel.

MUCK AND MARL.—Many farmers are so situated that they can draw out these fertilizing substances upon their uplands, at an expense that will make it a good employment of time and money. It is work that can be done in the fall of the year "at odd jobs," costing but little of clear outlay. We suppose two hands and a team will draw out a distance of forty rods, some 12 or 15 loads in a day, and this is a sufficient dressing for half an acre. Muck is better which has lain exposed for a year or two to the action of sun and frost—such as that thrown out from ditches. If marl and muck are mixed together, the effect is more beneficial than if either is applied separately—the marl furnishing lime and clay, and the muck, vegetable mould—the former imparting activity to the latter.

Extraordinary Crop of Wheat.

Wm. Taylor, market-gardener, of Bootle-cum-Linacre, has just reaped a most extraordinary crop of wheat off a piece of land in that township, measuring 70 yards less than half of a Cheshire acre. [About one of our acres.] It is a beautiful sample of yellow wheat, the seed of which was grown in Kirby. The produce of this small lot of land was, delivered at the mill, 53 bushels, of 70 lbs. each, and warehoused for his own use 11 heaped-up imperial bushels. We believe the annals of agriculture do not record such a crop under any circumstances; and, when the drouthy season is considered, in conjunction with the hot, sandy nature of the soil, it is wonderful. The produce speaks volumes in favor of small farms and the allotment system, for although the ploughing and harrowing of this piece of land was in the ordinary manner, yet there is no doubt that the large crop may be ascribed to the cultivation of

the land previously. The year before, it had been planted with potatoes and cabbages, and had been trenched to the depth of four feet.—*Liverpool Albion.*

REMARKS.—This trenching of land is a process of which we in this country know nothing. It consists in digging up the ground with the spade, completely reversing the soil, to the depth of from two to four feet. The common depth is about two or two and a half feet. This process enters as a part of the regular system in Flemish husbandry, (than which probably none is nearer perfection)—every field being successively trenched once in seven years: and although the operation is of course a very laborious and expensive one, those close-calculating Dutchmen know well that it pays the cost. The benefits consist in bringing up again to the surface the manures which have been washed into the subsoil, in providing deep pasture for the roots of plants, in safety against drouth, &c.

Now, as a matter of course, to recommend the adoption of such a system here would be the height of absurdity. The circumstances are totally different. But the astonishing crops produced where it is followed shows that there is advantage in getting down into the soil. If our farmers would adopt an approximation to this system, and once in four or five years, go over their farms with a heavy team, and Smith's sub-soil, (or as it was named by the committee on plows at the N. Y. State Ag. Fair "the trench plow,") throwing up the earth from a depth of 12 inches, (and this may be done with that plow,) we fully believe it would pay well the cost.

We have before spoken of this subject, and have recommended, in certain cases, a depth of plowing which some have deemed extravagant. That it may be seen we are not altogether singular in our opinions, we back them by the following remarks by the Editor of the Albany Cultivator, which excellent publication has come to hand since writing the above.

DEEP PLOWING.—We have occasionally urged the importance of deepening the soil, by turning up and mixing with the surface, small portions of the subsoil, where its nature is such as to produce beneficial effects. We have known many instances of the beneficial effects of such a course, Dr. D. H. Robinson, of Farmington, Ontario Co., N. Y., being compelled to prepare a piece of grass land for wheat, late in summer, plowed it very deep, not less in any place than eight inches, but averaging nine or ten inches. This was thoroughly harrowed, with a small dressing of rotted manure, and sowed upon the inverted sod. The product was thirty-five bushels per acre, on land where twenty bushels are usually considered a heavy crop. Another very skilful farmer of our acquaintance, finds so much benefit from the mix-

ture of the subsoil, that he considers a decided advantage would result, so far as raising wheat is concerned, if six inches of the surface of his land were entirely removed and carried off.

Subsoil plowing would doubtless be useful in such cases to a certain extent; but we would more particularly recommend thorough *trench* plowing—one plow to follow the first, so as to loosen and throw up the soil to the depth of at least one foot,—the last team to be double and attached to a strong plow.

Irrigation of Meadows.

The cultivation of meadows forms one of the most important branches of rural economy. It contributes materially to the prosperity of the agriculturist by increasing his stock of cattle, and consequently by furnishing him with manure, which may be applied to the augmentation of his crops. Indeed, the great progress which has been made in Germany in the improvement of cattle is mainly attributable to the attention which is devoted in that country to the culture of meadows. The environs of Siegin, in Nassau, are particularly famed in this respect, and every year a large number of young farmers repair to it, for the purpose of studying this branch of agriculture *in situ*. In that district the culture of grass has attained such great perfection, that the produce of their meadow-land far exceeds that obtained in any other part of Germany. This is effected simply by preparing the ground in such a manner as to enable it to be irrigated both in spring and in autumn. The surface of the soil is fitted to suit the locality, and the quantity of water which can be commanded. Thus if the meadows be situated upon a declivity, banks of from one to two feet in height are raised at short distances from each other. The water is admitted by small channels upon the most elevated bank, and allowed to discharge itself over the sides in such a manner as to run upon the bank situated below. The grass grown upon meadows irrigated in this way is three or four times higher than that obtained from fields which are covered with water that is deprived of all egress and renewal.—*Liebig*.

From the above may be seen the propriety of preparing at the mouth of ditches, which drain our wet meadows, a gate by shutting down which the water may be at pleasure retained for the purpose of irrigation in time of drouth, or let off when too abundant.

Ed.

National Wealth.

Every one knows that heavy imports and light exports will in time render any nation bankrupt, while the reverse cannot fail to enrich. It hence becomes an object with every patriot to discover and promote such kinds of business as will increase the exports of the nation.

A large part of the United States is finely adapted to the cultivation of *fruit*. American apples of the best quality sell at very high prices in Europe. In one case a successful cultivator in this state, by a very careful selection of the finest, obtained twenty-one dollars per barrel for Newtown pippins, sold in the London market, and nine dollars per barrel is the usual price he obtains there for his best fruit.

Now, every cultivator knows that hundreds of bushels may be obtained from an acre under the very best management and cultivation. What then could more contribute to national, as well as to individual prosperity, than extensive plantations of those varieties of the apple, pear, and other fruits, as are best adapted to conveyance to a distance. There is no doubt that if the northern and middle states were able to furnish large quantities of the very best kinds, markets would be opened in many parts of the world where such articles are now unknown. An acre of fruit will often yield more than ten times as many bushels as an acre of the best wheat, and at far less expense in labor. There is no question, therefore, that millions of dollars worth might be yearly sent out and scarcely interfering with the amount of grain and other farm crops already raised. Nor need any fear of overstocking the market, while our own cities and large villages are so scantily supplied with the best sorts, some of the finest having yet rarely ever passed the bounds of the amateur's garden, and most of the best being yet unknown to nineteen-twentieths of purchasers.—*Albany Cultivator*.

Chair of Agriculture.

The officers of the Agricultural Society for this District, have determined upon petitioning the Legislature for the insertion of a clause, in the new University Bill, for the establishment of a Professorship of Agricultural Chemistry; and also for an apportionment of funds to be applied in procuring a model farm in each district. Seeing that the successful cultivation of the soil is a matter of paramount interest to all, inasmuch as its products are necessarily looked upon as a permanent means of meeting our imports, and being as well the employment of the bulk of our population, a denial of the first request can scarcely be anticipated; should not the Legislature accede to the second, the Model Farms will have to be established by the exertions of the individual societies—for instance, as joint stock affairs; there is surely a sufficient number of individuals in each district willing to subscribe £5 or £10 each for such a purpose.—*St. Catherine's (C. W.) Journal*.

TO CURE SHEEP SKINS WITH THE WOOL ON.

—Take a spoonful of alum and two of saltpetre; pulverize and mix well together, then sprinkle the powder on the flesh side of the skin, and lay the two flesh sides together, leaving the wool outside. Then fold up the skin as tight as you can, and hang it in a dry place. In two or three days, as soon as it is dry, take it down and scrape it with a blunt knife, till clean and supple. This completes the process, and makes you a most excellent saddle cover. If, when you kill your mutton, you treat the skins this way, you can get more for them from the saddler, than you can get for the wool and skin separately disposed of otherwise.

Other skins which you desire to cure with the fur or hair on, may be treated in the same way.—*Emigrant's Hand-Book*.

☞ What may be done at any time will be done at no time.

Soils.

Soils are of various kinds, as heavy and light, wet and dry, fertile and sterile. They all require different management, in a greater or less degree.

Heavy soils are often stronger and more productive than light; but they require more labor for pulverization and tillage. They cannot be plowed when very wet, nor so well when very dry. Although containing greater or less portions of clay, they may be distinguished, as a class, from lighter soils, by the cloddy surface the fields present after plowing in dry weather; by their cracking in drouth; and by their adhesiveness after rains.

Sandy and gravelly loams, also contain clay, but in smaller quantity; so that they do not present the cloddiness and adhesiveness of heavy soils. Though possessing generally less strength than clay soils, they are far more easily tilled, and may be worked without difficulty in wet weather; they do not crack or bake in drouths. Indian corn, ruta-bagas, and some other crops, succeed best upon them. Sandy soils are very easily tilled, but are generally not strong enough. When made rich they are fine for some succulent crops.

Peaty soils are generally light and free, containing large quantities of decayed vegetable matter. They are made by draining low and swampy grounds. They are fine for Indian corn, broom-corn, barley, potatoes, and turnips. They are great absorbers, and great radiators of heat; hence they become warm in sunshine, and cold on clear nights. For this reason they are peculiarly liable to frosts. Crops planted upon them must, consequently, be put in late—after spring frosts are over. Corn should be of early varieties, that it may not only be planted late, but ripen early.

Each of these kinds of soil may be variously improved. Most of heavy soils are much improved by draining; open drains to carry off the surface water, and covered drains, that which settles beneath. An acquaintance covered a low, wet, clayey field with a net work of underdrains, and from a production of almost nothing but grass, it yielded the first year forty bushels of wheat per acre—enough to pay the expense; and admitted of much easier tillage afterwards. Heavy soils are also made lighter and freer by manuring; by plowing under coatings of straw, rotten chips, and swamp muck; and in some rare cases by carting on sand—though this is usually too expensive for practice. Subsoil plowing is very beneficial, both in wet seasons and in drouth; the deep loose bed of earth it makes, receiving the water in heavy rains, and throwing it off to the soil above, when needed. But a frequent repetition of the operation is needed, as the subsoil gradually settles again.

Sandy soils are improved by manuring, by the application of lime, and by frequently turning in green crops. Leached ashes have been found highly beneficial in many places. Where the subsoil is clayey, which is often the case, and especially if marly clay—great advantage is derived from shoveling it up and spreading it on the surface. A neighbor had twenty bushels of wheat per acre on land thus treated, while the rest of the field yielded only five.—*Thomas' Prize Essay.*

Who looks not before finds himself behind.

Mackey Hogs.

We lately saw at Cambridgeport, some very fine Mackey hogs, a boar and sow, owned by Mr. Holland Forbes, which he procured from different sources; yet there was a general sameness in their appearance. These animals are of fine forms and proportions, having very small bones, short legs, long, round, plump bodies, short necks and small heads; in fine they are as well proportioned as one could desire. They are kept in fine condition on a small quantity of common food, and they fatten very readily.

The sow was one year old the last of February, and has had two litters of pigs, nine each, which were sold at 8 and 10 dollars per pair. Another litter is expected in a few days, yet she is kept in good condition, almost too high for a breeder, at a trifling expense. She is fed only once a day on swill. She is of a large size, and if well fattened would probably weigh 600 pounds. Her disposition is remarkably mild, for an animal of her race, which, it is well known, is not noted for pleasant deportment. When she has pigs a person may enter the pen and take up a pig, and he squeal with affright, and yet she will not offer to molest him. Whether this is wholly owing to disposition, or partially to education, we cannot say; but from the excellent behavior of some of her offspring, which we saw in the neighborhood, we suppose that this mildness, so valuable in the hog, is a peculiar trait in the Mackeys.—*Boston Cult.*

SOW BLUE GRASS ON YOUR BANK FENCE.—

One of the reasons why sod fence will stand no better, is owing to the fact, that the turf made by the wild grass is not sufficiently tenacious at the surface. The roots of it are tough, but are very large and long. The great proportion of them are perpendicular, and not lateral or horizontal. Consequently, although they form a very strong turf, it is not a turf which holds the earth well, when there is any chance for the rain to act upon it. Blue grass, on the contrary, forms a very thick turf at the surface, which is precisely the place wanted by the covering of a sod fence. The winter is a good time to sow the seed, particularly on the snow, if there should be any.—*Emigrant's Hand-Book.*

FISTULA AND POLL EVIL.—The simplest, as well as readiest cure for these two diseases, that ever came to my knowledge, is common table salt. My neighbor, Mr. Ramsburg, took a horse a few years ago, that had a fistula, and after every other effort had been made to cure him, without the least effect, he threw into the ulcer a handful of salt, and the good effect was soon perceptible. The salt was repeated every day or two, and in a short time a cure was perfected.

Last summer, I had a mare that had the poll evil, and I cured her also with salt applied in the same way. I put however, a small bit of red precipitate in the wound, twice. Both animals are at this time well and serviceable

GEORGE BLESSING.

Frederick Co., Md., July, 1845.

From the Genesee Farmer.

Wheat Culture.

John Evans, Esq., of Mill Creek township, Western Pennsylvania, has harvested, according to the Erie Gazette, on three acres of land, "*so poor a few years ago that it would not bear white beans*," 123 bushels of wheat, which weighed 65 lbs. per bushel. At 60 lbs. per bushel, the yield is a fraction over 44 bushels per acre.

This land has been brought up by deep plowing, leached ashes and clover sod, with a plenty of clover on it, turned in and mixed with the soil. Within the last three weeks we have been called to notice several instances, where the use of *unleached* ashes, scattered as a top dressing at the rate of 20 bushels per acre, at the time of seeding, has evidently increased the crop some ten or twelve bushels per acre. Any quantity from 2000 to 4000 lbs. of dry, hard wood ashes, spread evenly on an acre just sown in wheat, can do no harm, and will hardly fail of being of great service to the crop. The alkalies *potash* and *soda*; and the alkaline earths *lime* and *magnesia*, are extremely prone to be washed, or leached out of the surface soil of cultivated fields. Hence unleached ashes are usually worth twice as much to make into grain and potatoes, as they bring to be used in the manufacture of pot and pearl-ash. One thing must be borne in mind, and that is, never to sow wheat on wet land without thorough draining. Unaccountable negligence in this regard has occasioned the loss of many thousands of bushels this season in Western New York by *rust* and *shrinkage*. It is down right folly bordering on insanity, to be to all the labor and expense of plowing repeatedly, harrowing thoroughly, and sowing a plenty of good seed, in good seasons, and after all, permit water to stand on a compact sub-soil, just long enough to ruin the crop. There is not a town in the state, perhaps, where cannot be found more or less fields whose crops suffer from the lack of good drains to carry off water that falls upon or collects below their surface. We have never seen the first man that regretted having drained a single rod of land. On the contrary, all commend the advantages which thorough draining has given them.

Be careful to sow nothing but clean plump wheat for seed. Wash that thoroughly in strong brine, or blue vitriol water and dry in lime, to destroy the seeds of smut and rust, that may, perchance, adhere to the kernels of grain.

By all means remember that it is far better to sow but five acres, and so feed the plants that they will give you 40 bushels per acre, than to sow fifteen acres, and starve the young wheat plants down to twelve bushels per acre,

and have even that badly shrunk, with rust. Don't forget that it takes less seed, and fewer hard days work to raise 200 bushels on *six*, than on *fifteen* acres of land.

Nothing is more common in Western New York, Pennsylvania and Ohio, than for land to be too rich in vegetable mould, to bring good wheat. The straw grows too rank, and thick, and is very liable to be affected by rust. To prevent this latter malady, Mr. HAYWOOD of the city of Buffalo, (as we intimated in a former number,) has used charcoal with signal success. Mr. H. is the owner of a tract of splendid wheat land near Sandusky, Ohio, where he has two flouring mills. He has kindly furnished us with a plot of seven wheat fields, taken for experiments this season, with the results, which follow:

No. 1. 20 acres. Applied 50 bushels of coal, ground fine, per acre. Yield 25 bushels of wheat per acre.

No. 2. 4 acres. No coal applied. Wheat badly rusted; yield 5 bushels per acre.

No. 3. 15 acres. Coal as in No. 1. Yield 25 bushels.

No. 4. 25 acres. Coal as in No. 1. Yield 35 bushels per acre.

Note, No. 4. was seeded with *old wheat*.

No. 5. 15 acres. Coal. Yield 25 bushels per acre.

No. 6. 8 acres. No coal. Yield 5 bushels per acre.

No. 7. 6 acres. No coal. Yield 3 bushels per acre.

The soil, culture, &c., precisely alike except the use of 50 bushels of coal per acre as designated—sown in April and May. The soil abounds in lime and organic matter.

Mr. Haywood will apply 10,000 bushels of coal to the fields to be sown in wheat this autumn. It costs him \$30 per 1000 bushels. He grinds it in a common bark mill used by tanners.

WILD-GOOSE WHEAT.—A gentleman in this city planted, on the 2nd of November last, seven grains of this extraordinary and prolific variety. The produce was eighty large ears, and forty smaller ones! The large ears contained about thirty. It is bearded with strong awns much stiffer than those of English barley—the grain or pickle is fully twice the size of ordinary wheat—the straw is unusually strong, and it is believed could never be lodged or laid. On ripening, the ears become of a blue black color, the straw however is not black—from the sides of the earliest ears a second and sometimes a third chest is thrown out from the lower chests—each of these additional chests contain two grains. It is so tenacious of dropping its grain that it may be left standing, as they have been, for a month

after it is ripe without injury or loss—but this quality makes it so hard to thrash that it is doubted if it would thrash with the flail. From being so late sown it was much rusted, so much so, as would have utterly destroyed the common varieties—this is however only injured and *slightly* shrunk. There is a very much larger proportion of gluten in the composition of the grain than common wheat, and it would make what bakers call a very *strong* flour.

The ground in which it was sown was by no means rich although in a garden—having been rendered poor by the addition of a large proportion of yellow sand for the purpose of growing striped Dahlias—the ground had not been manured for three years.—*Communicated.—Toronto Patriot.*

From the Indiana Farmer and Gardener.

Apples for Hogs.

MR. EDITOR:—Permit me to make some remarks and inquiries in reference to raising apples for feeding hogs. The origin of the present article is the fact of some of our farmers making orders to nurseries, some for five, and some as high as eight hundred apple trees of one single variety of sweet apple. This, though undoubtedly a profitable investment, seems to me to be an injudicious selection, even admitting the variety in question to be pre-eminent for that purpose.

I here permit me briefly to express some of my views on this subject: and solicit horticulturists of more age and experience, to correct errors, and supply deficiencies. Many reasons might be assigned for varying the selection, but I shall introduce but few at present.

In the first place there would be a large portion of the season when a single variety or kind would not afford ripe and falling fruit.

Secondly, there would be too great an amount of fruit ripe at one and the same time.

And thirdly, the stock would be liable to cloy and tire from so constant a use of the same fruit. Would it not be a more profitable and advisable course to pursue in planting such orchards, to make a selection, comprising varieties that will afford a proportionate amount of ripe and falling fruit from June till winter; and even in this, include many varieties that are slightly acid, in order to give tone to the stomach of the animal, and a keener relish for the sweeter and richer fruits?

I will introduce a short list, that may be taken from, or added to, in order to lay down premises, whereby we may be able to obtain a selection that would be better than to exclude all except any one single kind, viz:

Sweet June, Carolina June, Red Juneating, Prince's Harvest, Sweet-bough, Sweet August, White Sweeting, Hoss Apple, Wine Apple, Rambo, Holland Pippin, Red and Green

Sweeting, Golden Russet, Sweet Crimson, Golden Sweet; and to these might be added many of our valuable early winter apples.

Z. S. RAGAN.

Gleanings from the Agricultural Journals.

Substitute for White Lead.—Take one bushel of unslacked lime, and slack it with cold water; when slacked add to it 20 lbs. of Spanish whiting, 17 lbs. of salt, and 12 lbs. of sugar. Strain this mixture through a wire sieve, and it will be fit for use, after reducing with cold water. This is intended for the outside of buildings, or where it is exposed to the weather. Two coats should be laid on wood, and three on brick. A whitewash brush may be used for laying it on, and each coat must be dried before the next is applied. This may be made any color you please. For straw color, instead of the whiting use yellow ochre; for lemon color, ochre and chrome yellow; for lead or slate color, lampblack; for blue, indigo; for green, chrome green.

Culture of Potatoes.—S. Widney, Piqua, O., informs us that he successfully cultivates potatoes on the following plan: Plant in hills, and when the potatoes are about an inch out of the ground, take a light plow and run it so close to them as to cover them lightly with earth. When they get through this an inch or so, cross plow them, covering up as before. This mode is stated to be equal to the best hoeing, beside being a great saving of labor. Mr. W. states that he has practiced this mode for several years, and has never lost a hill, or had them at all injured by covering.

Fire-Blight. There is said to have been the past season in Ohio ten times more fire-blight in the pear tree than ever before, and the cause is supposed to have been the severe frosts which occurred after the trees were in full process of vegetation. It is the opinion of some eminent horticulturists that the fire-blight is always owing to this cause.

Productive Farm. The farm of Mr. James Gowan, near Philadelphia, consisting of 100 acres, exclusive of wood-land, maintains from 40 to 50 head of cows, the necessary horses, a large stock of swine for breeding and fattening; and produces for market hundreds of bushels of rye, some wheat, and on an average 400 bushels of potatoes, and 3 to 400 bushels of carrots, beside providing for the family. Mr. G's products per acre, are 100 bushels of corn, 400 of potatoes, 50 of wheat, 1,000 sugar beet, nearly 700 of carrots, more than 800 of ruta bagas. High manuring, thorough cultivation, the soiling system, in short, the thorough adoption of all the improved modes of farming are the secret of this success. By

these means, he makes four or five acres do the work of thirty. How near an approximation to such management can a Michigan farmer make with advantage?

Temperature of Cream when churned.

Practice has proved that 62° is the best temperature for cream at the time of churning. If below this, pour in hot water, if above it, cold, until it is brought to the required point. This point is ascertained of course by a thermometer.

"Aguirre" Wheat. A new species of wheat to which this name has been given, has lately been obtained from Castile, in Spain, by Mr. Townsend, of Albany, and a specimen of it presented to the N. Y. State Ag. Society. It is very superior in whiteness and weight. The weight was at the rate of 68½ pounds to the bushel.

ASAFÆTIDA will unquestionably attract wolves. The early settlers in this country were in the habit of using it in the following manner, and we believe the Indians and experienced hunters still employ it in a similar way. Those animals generally inhabit low marshy grounds during the day, and when their whereabouts is once ascertained, the huntsman should spread a thin coating of asafætida over the soles of his shoes, and make a circuit around that portion of the ground where they are supposed to be, then about in the centre of that circle, a piece of the same, about the size of a full grown walnut, should be suspended upon a tree, at such a distance from the ground that the wolves could not reach; from eight to ten feet would be the distance from the ground, that would be the most likely to attract their notice.—*Brit. Am. Cult.*

PAINTING HOUSES.—It is good economy to use plenty of paint for all kinds of wood-work that is exposed to the weather; and nothing gives a neater or more comfortable appearance, to a village, or to a country residence, except trees and shrubbery, than to see the buildings of every description well painted. It is therefore desirable and expedient for farmers to attend to this matter; and according to the following sensible advice, originated we know not where, this is the very time to be about it.

"It has long been a subject of inquiry as to the best time to apply paint to the clapboards of houses for durability. Repeated experiments have been made, within twenty-five years past, which have resulted in the conviction, that paint applied between November and March, will stand more than twice as long as that which is spread in the warmest weather. The reason is obvious; for in cold weath-

er the oil and other components parts of the paint, form a hard substance on the surface of the clapboard, nearly as hard as glass, and not easily erased, or even cut with a sharp knife, and will not soon wear off; whereas paints applied in the months of July and August, and more especially if in a severe drought, the oil immediately penetrates into the wood like water into a sponge, and leaves the lead *nearly dry*, which will soon crumble off."—*Selected.*

RING-BONE IN HORSES.—Ring-bone commences in the lower pastern, and usually in the joint, but it rapidly spreads, and embraces not only the pastern-bones, but the cartilages of the foot. There is at first a slight enlargement or bony swelling, on each side of the foot, and just above the coronet. It is more frequent in the hind foot than in the fore, because there is more violent exertion in these than before; yet the lameness is not so great, because these bones are not liable to so much injury; in its early stage it is not impossible to remove the disease by active blistering, or by the hot iron. Ring-bone is one of the most serious lamenesses, with which horses can be afflicted. It is unsoundness when existing in the slightest degree—for when the bony deposit begins to spread, the disease is incurable. In slight cases rubbing the swelling night and morning with a drachm of mercurial ointment, rubbing it well in, and afterwards applying a blister, and in 2 or 3 weeks another will be of benefit.—*Selected.*

Remedy for Colic in Horses.

Take two quarts of cold water in a hand basin, add with your fire-shovel say a pint of hot wood ashes or embers, and stir. Cut off an inch and a half from a common hand of tobacco and shred in the mixture—stir all up and let it stand fifteen minutes and settle.—Pour off a common black bottle full of the fluid and drench your horse—in half an hour he will be well.

RATIONALE.—The gas which bloats the horse is probably carbonic acid gas and light-carburetted hydrogen, the product of the vegetable decomposition which is going on in the intestines—at any rate it is a gas which is immediately absorbed by its combination with an alkali. The tobacco is a powerful antispasmodic and cathartic—it therefore prostrates the nervous sensibility, checks the inflammation and increases the action of the lower intestines. In a critical or extreme case it will be well to give an enema of a strong decoction of tobacco with a common syringe. Out of more than one hundred instances in which I have seen this remedy used, I have yet to witness the first failure. It also has an advantage over very many remedies,

viz: it cannot injure a horse in perfect health. Feed light for a day or two.

CAUSES OF COLIC.—The main cause consists in the presence of a greater amount of food than the intestines can elaborate into nutriment, or of a kind of food difficult of digestion, producing spasm, obstruction, vegetable decomposition and consequent inflammation. *Hard driving on a full stomach* will produce colic, because the effort weakens the tone of the digestive powers and they cannot elaborate the food—which then produces irritation and inflammation. *Cold water when the horse is heated*, because it is a powerful stimulus, will produce spasm or obstruction, or by the reaction produces weakness of the digestive organs. It also gives too much fluidity to the food—fluids are more difficult of digestion than solids. It also increases the fermentation. *Hearty feeding after hard driving*, because the stomach and intestines sympathize with the general fatigue of the system and are easily overloaded, and the appetite will induce the horse to eat more than he can digest.

COLIC IS FIRST FLATULENT—THEN INFLAMMATORY.—In the flatulent stage, or in what is called belly ache, aromatic remedies or half a gill of spirits of turpentine, or a pint of whiskey and black pepper may be given; all these stimulate the system and may assist it in overcoming the difficulty. But in the latter and inflammatory stage, which rapidly succeeds the former, these same remedies would produce speedy death by increasing the inflammation. In nine cases out of ten, this disease is not observed by the ordinary driver until it has assumed the inflammatory form—in which stage the remedy at the head of this article should be given with as little delay as possible; and it should not be omitted even if the horse be supposed to be in the hands of death itself—for I have seen them recover when every bystander had dismissed all hope.—*Prairie Far.* T. N. WELLES.

A Question for Horticulturists.

DOES THE STOCK AFFECT THE GRAFTED FRUIT?

We hold that in some cases the stock has an influence on the grafted or budded fruit, "for better or for worse." We are aware that most horticulturists hold a different opinion, and if the subject should be decided by numbers we should be voted down. Cases can be named in which the influence of the stock is plainly perceptible. At present it is not our object to introduce cases of the kind, and arguments in favor of our position, but merely to state one fact from a highly respectable source that lately came within our observation.

Friend Samuel Brown, of Pembroke, when we were at his place lately, handed us an apple and wished us to say whether it was sweet or sour;

on trying it we remarked that it was clearly a sweet apple, but not very sweet. He said it was produced by grafting a scion of a sour variety on a sweet stock. It was taken from a tree which bore quite tart, red, long apples, and put on a stock that bore white, flat, sweet apples, and the fruit from the scion, which we examined and tasted, bore sweet apples, but, as we were informed, not so sweet as the fruit of the stock. In shape they are long, like those of the scion, but in color they resemble neither, being striped.—*Bost. Cult.*

THE AMERICAN SHEPHERD. *A new work on Sheep by L. A. Morrell.* This work is deserving of unqualified praise. In point of completeness, style of execution, and the importance of the facts, and directions embodied, it is doubtless superior to any work on the subject ever published in America. It embraces a history of the sheep, a description of all the various breeds with the portraits of the principal ones, and full directions for the management of flocks through every season of the year. At the close are some twenty letters from various experienced flock-masters, giving details relative to their respective methods. Altogether the work contains such a mass of useful information, that it deserves to be in the hands of every shepherd. For the benefit of those to whom the work is not accessible, we shall give occasional extracts from its pages.

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COTSWOLD SHEEP.

The Subscriber would remind Farmers and Breeders of sheep in general, that the time is now drawing near when the bucks should be turned in with the ewes. He has now on hand a few bucks of this celebrated breed which he would be glad to dispose of at reduced prices. These sheep are all from imported stock, now in possession of the subscriber, and he defies competition through the United States. The flock of bucks this year have averaged 10 lb. 1 oz. per fleece, and are admitted by every one who has seen them, to be superior to any thing they have ever seen. Apply, post paid, to the subscriber at Marshall.

GEO. HENTIG.

Michigan Farmer.

TERMS.

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